

## REMARKS

This response is in reply to the Final Office Action of May 24, 2005. Claims 1-52 are currently pending in the application, and Claims 1-52 have been rejected. Applicant herein amends Claim 9 of the application for form, and respectfully submits that such an amendment is fully supported by the specification and no new matter has been added by this amendment.

The Office Action rejects Claims 1-52 under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 4,789,801 to Lee ("*Lee*") and as obvious over U.S. Patent No. 4,643,745 to Sakakibara ("*Sakakibara*"). Applicant respectfully traverses these rejections.

Regarding the *Lee* reference, the Office Action states that *Lee*'s "second electrodes" are similar to those of the claimed invention. Applicant respectfully disagrees. As the Office Action notes, *Lee* does not disclose electrodes with the ends bent back to meet each other to make hollow electrodes, but also states that it would have been obvious to change the electrode configuration as an "obvious matter of design choice." (See Office Action at p. 3). The Office Action further states that the *Lee* electrodes "would work equally [as] well" as the claimed invention. However, Applicant submits that there is no support for such a contention. In fact, the inventive shape of the electrodes of the claimed invention serve a very specific purpose, not obvious to one of ordinary skill in the art. The sharp edges of the prior art—including *Lee*—have the disadvantage of generating ion emission. This is unwanted corona that increases losses in air flow and ozone, without aiding in particle collection. The claimed invention remedies this problem by bending the edges of the electrode to increase the apparent radius of the edge, and considerably reducing the "bad" corona. Additionally, the bent edges of the claimed invention preclude the high voltage breakdown to grounded parts and extra stress to driver insulation that accompany the sharp edges of the prior art. Accordingly, the bent edges of the claimed invention—which are, as noted in the Office Action, not found in *Lee*—are much more than just a matter of design choice. Applicant therefore respectfully requests reconsideration of the rejection.

Similarly, *Sakakibara* also teaches an air cleaner having electrodes (solid in structure). Again, however, as noted in the Office Action, the electrodes do not have ends bent back to meet each other to form hollow electrodes. The Office Action states that it would have been obvious to one of ordinary skill in the art to bend back the electrode edges (as in the claimed invention) as a matter of design choice. For the reasons stated above, Applicant disagrees. Applicant's

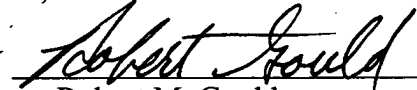
claimed invention solves a long-felt need—that of reducing ion emissions and high voltage breakdown. Without hindsight, this advantage would not be determined through mere routine experimentation, as suggested by the Office Action. Instead, the air conditioners of the prior art, including *Lee* and *Sakakibara*, suffered from these common problems which Applicant discovered could be fixed by the claimed invention. Accordingly, one of skill in the art would not have found the claimed invention obvious.

For at least the foregoing reasons, Applicant respectfully submits that this application is in condition for formal allowance, and courteously solicits such action. If the Examiner has any questions regarding this Response, Applicant respectfully requests that the Examiner contact the undersigned.

Respectfully submitted,

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